

**REMARKS**

In the Office Action of November 21, 2003, the Examiner has rejected claims 1-8, all of the currently pending claims, under either §102 or 103. In particular, claims 1-3 have been rejected under §102 as anticipated by Prein; claim 8 has been rejected under §103 as obvious over Prein, and claims 4-6 have been rejected under §103 as obvious over Prein in view of Holcomb. Claim 7 has been rejected under §102 as being anticipated by Morton. These rejections are respectfully traversed in view of the comments and discussion which follows.

The patent to Prein discloses a number of laser configurations which employ a type of catalyst. In Figure 1, for example, a catalyst 13 is essentially sandwiched between an electrode 5 and the vacuum vessel or associated insulator. Voltage is applied across the electrodes in order to generate a discharge.

The purpose of Prein is to prevent degradation of the laser medium and dissociation of the same, using the energy of the discharge. As described in column 3, lines 13-23, the purpose of the catalyst is to remove such dissociation by-product so that the laser medium does not become contaminated, therefore giving the laser a somewhat longer lifetime. The use of beneficial gas reservoirs and reverse reaction devices is also vaguely disclosed in this reference.

Applicants submit that Prein does not disclose an optical catalyst, within the meaning of this term. Further, Prein does not disclose any configuration wherein the ultraviolet rays generated by discharge can be used to positive effect, which is one of the primary attributes of the present invention. It is noted in this connection that the catalyst used by Prein is not particularly positioned in order to be exposed to the ultraviolet radiation, as currently claimed.

In view of the above shortcomings of the reference, claims 1-3 and 8 are considered patentably distinguished from Prein. Holcomb does not cure these deficiencies, and accordingly the rejection of claims 4-6 should be withdrawn as well.

The patent to Morton discloses the use of a discharge mechanism including cathode 108 and anode 110 which are formed as convex surfaces defining a discharge area 112 therebetween. A pre-ionizer 130 is arranged proximate cathode 108 and generates ions in the upper gas stream, in order to stabilize the discharge.

**RESPONSE**  
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Applicants fail to understand the relevance of Morton with respect to present claim 7. For example, clearly the electrode structures in Morton will be directly exposed to the most intense ultraviolet radiation initiated by the discharge. In direct contrast, claim 7 describes a configuration where the ultraviolet rays are received in a recessed portion and reflected so that the reflected light passes through the discharge space between the electrodes. Accordingly, there is no negative effect upon the electrodes according to the invention, in contrast with the situation in Morton.

In view of the foregoing, it is believed that the art now cited by the Examiner is potentially even less relevant than other prior art cited during prosecution, and accordingly, absent the presence of truly relevant prior art, Applicants respectfully submit that the present application should be allowed forthwith. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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